

IN THE CLAIMS

Kindly cancel claims 17-22, 27-39, and 44-50 without prejudice.

Listing of Claims

1. (Original) A method of making a mold from shape memory materials for manufacturing castable composite parts with resins which are solidified within said mold by application of a curing temperature, said method comprising the steps:
 - a) providing said shape memory material with a glass transition temperature which exceeds said curing temperature;
 - b) processing said shape memory material into a memorized shape; and
 - c) deforming said shape memory material from said memorized shape into a desired mold shape.
2. (Original) The method of claim 1 wherein said shape memory material is a shape memory alloy.
3. (Original) The method of claim 1 wherein said shape memory material is a shape memory polymer.
4. (Original) The method of claim 1 wherein said processing of said shape memory material is by die casting.
5. (Original) The method of claim 1 wherein said processing of said shape memory material is by solvent casting.
6. (Original) The method of claim 1 wherein said processing of said shape memory material is by extrusion.

7. (Original) The method of claim 1 wherein said processing of said shape memory material is by molding and annealing.
8. (Original) The method of claim 1 wherein said deforming of said shape memory material is by draping.
9. (Original) The method of claim 1 wherein said deforming of said shape memory material is by vacuum forming.
10. (Original) The method of claim 1 wherein said deforming of said shape memory material is by computer aided mechanical technology.
11. (Original) The method of claim 1 wherein said deforming of said shape memory material is by stamping.
12. (Original) The method of claim 11 wherein said stamping of said shape memory material is performed with said shape memory material below said glass transition temperature.
13. (Original) The method of claim 11 wherein said stamping of said shape memory material is performed with said shape memory material above said glass transition temperature.
14. (Original) The method of claim 1 wherein said shape memory material comprises an embedded thermal energy generation means.

15. (Original) The method of claim 14 wherein said thermal energy generation means comprises an electrical conductor.

16. (Original) The method of claim 14 wherein said thermal energy generation means comprises thermally conductive fibers.

Claims 17-22 (Canceled)

23. (Original) A method of making a mold for casting a castable composite part, said method comprising:

- a) providing a film comprising a SMP and having a upper and lower surface;
- b) providing a form having a upper and lower surface, the upper surface of the form having a molded area; and
- c) placing the lower surface of the film onto the upper surface of the form such that the film conforms to the molded area thereof.

24. (Original) The method of making a mold in claim 23 wherein the film in step c) is placed onto the upper surface of the form under vacuum and the form and film are exposed to the atmosphere such that the film conforms to the molded surface.

25. (Original) The method of making a mold in claim 23 wherein the SMP is polynorbornene based.

26. (Original) The method of making a mold in claim 23 further comprising step d) providing a heat source, the heat source being in thermal communication with the film.

Claims 27-39 (Canceled)

40. (Original) A method of making a mold for a castable composite part comprising:

- a) providing a castable composite part;
- b) providing a SMP, said SMP being molded around said castable composite part;
- c) removing said SMP from said castable composite part to form a mold thereof.

41. (Original) The method of making a mold in claim 40 further comprising after step b) and prior to step c) quenching said SMP to retain the shape of said castable composite part.

42. (Original) The method of making a mold in claim 40 wherein the SMP is polynorbornene based.

43. (Original) The method of making a mold in claim 40 wherein the castable composite part is one of an automotive, mechanical, and electrical part.

Claims 44-50 (Canceled)